03050202-030

(Dorchester Creek/Eagle Creek)

General Description

Watershed 03050202-030 is located in Berkeley, Charleston, and Dorchester Counties and consists primarily of ***Dorchester Creek and Eagle Creek*** and their tributaries. The watershed occupies 21,968 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Yauhannah-Yemassee-Meggett-Brookman series. The erodibility of the soil (K) averages 0.15; the slope of the terrain averages 1%, with a range of 0-6%. Land use/land cover in the watershed includes: 44.3% urban land, 27.6% forested land, 20.9% forested wetland, 3.2% agricultural land, 3.6% scrub/shrub land, 0.2% barren land, and 0.2% water.

Sawmill Branch (Limehouse Branch, Stroberfield Branch) flows past the Town of Summerville and is joined by Rose Creek to form Dorchester Creek, which flows into the Ashley River. Sawmill Branch is classified FW, and Dorchester Creek takes on the classification of the Ashley River, which is SA. Limehouse Branch is connected to Ancrum Swamp in watershed 03050201-070. Eagle Creek (SB) accepts drainage from Chandler Bridge Creek, Spencer Branch, and Federwitz Branch before draining into the Ashley River. There are a total of 31.7 stream miles in this watershed.

Water Quality

Station #	Type	Class	Description
CSTL-043	S	FW	SAWMILL BRANCH AT SC 78 E OF SUMMERVILLE
CSTL-013	P	SA	DORCHESTER CREEK AT SC 165
CSTL-099	P	SB	EAGLE CREEK AT SC 642 5 MI SSE OF SUMMERVILLE

Sawmill Branch (CSTL-043) - Aquatic life uses are not supported due to dissolved oxygen excursions. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Dorchester Creek (CSTL-013) - Aquatic life uses are partially supported due to dissolved oxygen and pH excursions. Significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentrations, total nitrogen concentrations, and turbidity suggest improving conditions for these parameters. Very high concentrations of chromium, copper, and nickel were measured in the 1996 sediment sample, with copper and nickel exceeding their respective Effects Range Median (ERM). Also in sediments, the PAHs fluoranthene, phenanthrene, pyrene, and benzo(a)anthracene were detected in the 1997 sample, with fluoranthene and phenanthrene both exceeding the Effects Range Low (ERL) concentrations, but less than ERM concentrations. Recreational uses are not supported due to fecal coliform bacteria excursions. A significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

***Eagle Creek* (CSTL-099)** - Aquatic life uses are fully supported. This is a tidally influenced system, often characterized by naturally low pH. Although pH excursions occurred, they were typical of values seen in such systems and were considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions; however a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Nonpoint Source Management Program

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
SALISBURY BRICK CORPORATION SALISBURY BRICK MINE	0549-15 CLAY
L.J., INC. LADSON FARMS	0644-19 SAND/CLAY

Land Disposal Activities

Landfill Facilities

SOLID WASTE LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
TOWN OF SUMMERVILLE MUNICIPAL	181002-6001 ---------

Growth Potential

There is a high potential for growth in this watershed, which includes areas in both Dorchester and Berkeley Counties. Water and sewer services are available in these growth areas.

Watershed Protection and Restoration

Special Projects

Watershed Resource Restoration In A Tributary Of The Ashley River

The SCDHEC-OCRM Charleston Harbor Project, using Section 319 funding, conducted a wetlands restoration project along a tributary to the Ashley River. In cooperation with Dorchester County, the Town of Summerville, and the U.S. Army Corps of Engineers, a 9.5 acre wetland along Sawmill Branch Canal was selected for restoration. The area had been altered by the Corps in the 1960s to prevent flooding, and the spoils placed between the wetland and the canal. This isolated the wetland and caused degradation of water quality in the wetland and canal. To remedy this problem, flow pipes were placed beneath the berm created by the spoil. This connected the wetland to the canal once again. Stormwater draining from nearby subdivisions now has an opportunity to be filtered through natural

processes before entering Sawmill Branch Canal. The project produced an informative booklet, *Wetland Restoration: An Alternative Way to Treat NPS Pollution*.